

# US AGRICULTURE FATALITY STATISTICS

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The United States agriculture industry is essential to the livelihood of its citizens and the world. In 2002, the National Agricultural Statistics Service estimated more than 2.16 million US farms that included 941 million acres in farm land and employed more than 1.19 million workers. A majority of US farms employ less than 11 workers; thus, they are exempt from Occupational Safety and Health Administration (OSHA) worker protection standards, worker training requirements, and accident reporting procedures. Given the high number of farm workers, lack of required safety education, and the inherent dangers involved in farm environments, a significant challenge exists in reducing the number of farm injuries and fatalities. The following discussion of agricultural industry fatalities (and farming occupation deaths, in particular) illustrates the need for effective worker safety programs.

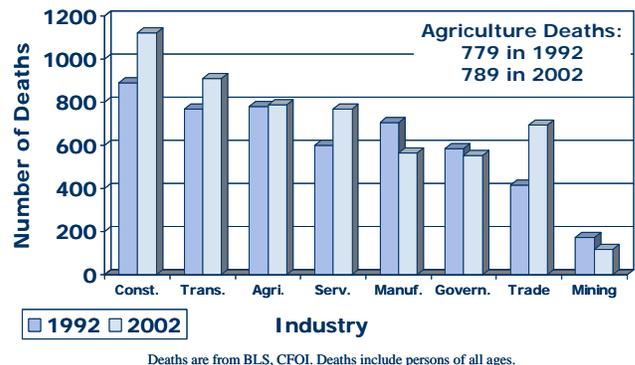
## INDUSTRY AND OCCUPATION PERSPECTIVE

Figure 1 gives the number of fatalities per major US industry for 1992 and 2002. Data provided by the Bureau of Labor Statistics (BLS), Census of Fatal Occupational Injuries (CFOI) ranks agriculture third in total number of deaths among all US occupations behind only construction and transportation. The BLS documents 789 and 730 deaths in the agricultural industry for 1992 and 2002, respectively, representing a 1.2 percent increase in the 10-year period. An additional 150,000 workers suffered disabling injuries.

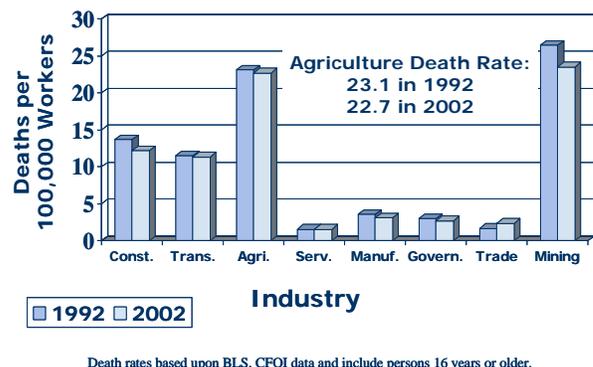
The death rate for agricultural workers remains high when compared to other US industries. The agriculture industry is second only to mining in death rate per 100,000 workers (Figure 2). National Safety Council estimates based upon BLS employment data list the agriculture death rate at 23.1 deaths per 100,000 workers and 22.7 deaths per 100,000 workers in 1992 and 2002, respectively. This represents only a 1.7 percent decrease in the 10-year period.

United States Department of Agriculture (USDA) data for 2002 ranked the farming occupation second among selected occupations with a fatality rate of 28 per 100,000 workers, behind only pilots and navigators (69.8). Farming also rated second in total number of fatalities in 2002 at 519, behind only truck drivers (808). *The USDA defined farming to include non-horticultural farmers, non-horticultural farm managers, farm workers, and farm worker supervisors.*

**Figure 1. Distribution of US Occupational Deaths for 1992 and 2002**



**Figure 2. Distribution of Occupational US Death Rates for 1992 and 2002**

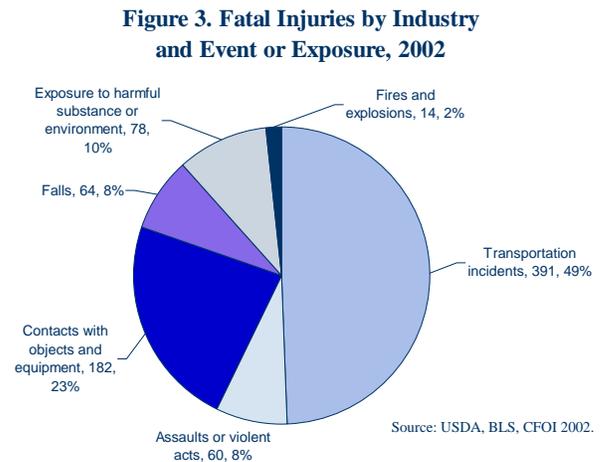


**NOTE:** Death rate data only includes persons 16 years or older. These data do not account for accidental deaths to minors, who constitute a significant portion of the agriculture industry labor force. For example, a 1998 report released by the Department of Health and Human Services indicated that more than 650,000 youth under the age of 16 worked on farms. In addition, an estimated 104 children per year under 20 years of age die of agricultural injuries on US farms.

## CAUSE OF DEATH

The very nature of agricultural work presents an assortment and frequency of hazards not realized in other occupations. Farmers and ranchers, for example, often must work in extreme environmental conditions while operating machinery and equipment that require concentration and care to avoid serious injury. In addition, formalized worker training that includes recognizing potential hazards, injury prevention, and emergency response is rare on farm operations. Given these factors, the agriculture industry's second highest death rate among major US industry is not surprising.

Figure 3 illustrates the events or exposures leading to US agriculture deaths in 2002. According to USDA data, 391 fatalities (or 49 percent of all agricultural injury deaths) were attributed to transportation incidents, involving highway, non-highway, air, water, and rail fatalities. Many fatalities are tractor related involving overturns. Twenty-three percent (or 182) of all fatalities occurred from contact with objects and equipment. These involved crushing injuries, entanglements, and blunt force trauma from structures and agriculture implements.

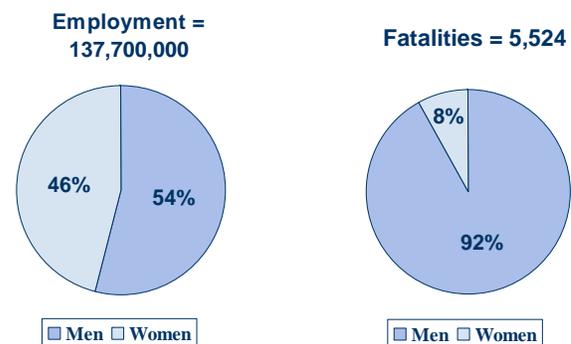


## GENDER AND AGE

Overall employment figures show men with a slight majority (54 percent) compared to women workers (46 percent). However, data indicate that men are significantly more likely to experience accidental death (Figure 4). Gender difference is even more substantial within the agriculture industry. Though men comprised 74 percent of all workers age 16 years and older, 2001 BLS data show that men accounted for 96 percent of all fatalities.

Age distribution in the agriculture industry, and farming occupation in particular, shows a significant number of youth (under 20) and seniors (over 65) are exposed to workplace and environmental hazards on a frequent basis. A 1998 survey released in 2001 by the National Injury and Occupational Safety and Health (NIOSH) estimates that approximately 1.9 million youth under the age of 20 years either work or live on farms. Of these, youth less than 10 years of age were estimated to have the highest number of injuries at approximately 11,000 and the highest work-related injury rate at 14 injuries per 1,000 workers. In addition, an estimated 104 children younger than 20 years of age die of agricultural injuries on US farms and ranches each year.

**Figure 4. Employment and Fatality Profiles by Gender Across all Industries, 2002**



According to the BLS, there are more than 300,000 workers over the age of 65 employed in the agriculture industry. On farms, the effects of aging coupled with the inherent dangers involved in farm work and machinery can significantly increase risk of injury. The quick onset of fatigue, reduced vision, and slower reaction time associated with the normal aging process can seriously impact safe job performance. Nowhere is this more evident than in tractor operation. NIOSH data has demonstrated that tractor drivers over 65 years of age may be two to three times as likely to die in tractor accidents as persons in other age groups.

## CONCLUSION

Statistics show that agricultural workers have been and continue to be exposed to numerous workplace hazards. Data also suggests that, given the large number and high injury/fatality rates of children and elderly farm workers, future priority must be placed on youth safety and accident prevention. Farm safety researchers contend that communicating safety messages through venues that influence community leaders, such as through churches, banks, and other rural institutions, works better than safety education aimed directly at individual farmers who tune it out. Thus, using the influence of peer pressure provides an effective approach to change behaviors.